BUSHRANGER

Bushranger 46TBU6 Lawnmower Assembly and Owner's Manual

www.poweruplawncare.com.au

WARNING! Read this manual before operating your BUSHRANGER Lawnmower.

IMPORTANT INFORMATION

Labels

The following warning labels are attached to your mower on purchase. Please read before discarding.

Stroke Label

Briggs & Stratton Engine
Engine must have 600ml off S.A.E. 30 Oil placed in the Sump Before Starting

WARNING
ATTENTION 注意 CHÚ Ý انتباه ! ATTENCIÓN
BUSHRANGER 4 STROKE ENGINE MUST HAVE OIL IN SUMP
BUSHRANGER HEAVY DUTY 4 STROKE ENGINE OIL RECOMMENDED
PUT OIL IN ENGINE
ENGINE MUST HAVE 600ML OF S.A.E. 30 OIL PLACED IN THE SUMP BEFORE STARTING
Failure to follow this instruction will result in engine damage that IS NOT covered by product warranty
WARNING
LB02207A

Dust Cap

Bushranger 4 Stroke Briggs & Stratton Mowers Only)

Removal of Blue Dust Cap

Dispose of dust cap from under fuel cap before initial filling (if fitted)
DO NOT REPLACE

CONTENTS & SYMBOLS

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IMPORTANT NOTES

Congratulations on your purchase of a top quality Bushranger lawnmower. This instruction manual will aid in the assembly, operation and maintenance of your new lawnmower.

Please read carefully to ensure safety and the long life of your product.

Do not operate the unit before reading this manual.
Do not operate before reading the 'Engine Manual'.

Keep this instruction manual in a safe place for future reference or if service is required on your unit.

Please read the 'Warranty' section carefully

Unit Details

When unpacking the unit, ensure that all component parts listed below have been provided. Should there be a problem, notify the place of purchase.

You should find the following enclosed:

- 1 Bushranger lawnmower
- 1 Engine manual
- 1 Fitment pack
- 1 Mower manual

Note: Side chute must be fitted before operating mower (refer to page 5)

Safety Instructions

Transporting the mower

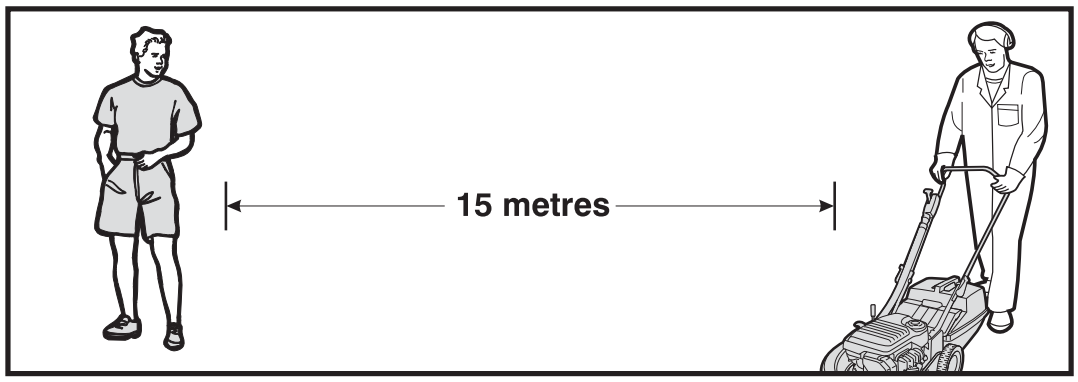
- Turn the engine off, by moving the throttle lever to the 'STOP' position and switching the fuel tap off (where fitted).
- Disconnect the spark plug lead and wedge it between the cylinder head fins.
- Do not transport the mower in a vehicle if there is fuel in the fuel tank.

Before using the mower

- Do not start the mower until you have studied the instruction manuals.
- Know the mower controls. Learn how to stop the engine quickly in an emergency by moving the throttle to the 'STOP' position.
- Before using the mower, ensure that the blade assembly is not worn or damaged. Always replace worn or damaged blades and bolts in sets to preserve correct balance. Damaged or worn blades and bolts are major hazards. Use genuine Bushranger spare parts only.
- **Please note blades are tucked under blade disc for safety and transport reasons before use. Once the engine is started they will relocate themselves for cutting.**
- Check all fasteners regularly. Always ensure the mower is in a safe operating condition.
- Check for grass build up around the engine and muffler which may cause overheating and/or a fire hazard.
- Do not start the engine unless the side chute and bumper bars are securely in position.

Operating the mower

- Do not mow while people or pets are in the vicinity of the mower or within the mowing area. Ensure that bystanders are a minimum of 15 metres away.



- Do not mow in bare feet or open shoes. Wear long trousers and heavy footwear.
- Make sure the lawn is clear of sticks, stones, bones, wire and debris before mowing. These could be thrown by the blades and cause injury or damage.
- Start the engine carefully with feet well clear of blades. Do not tilt the mower when starting the engine.
- Stop the engine whenever you leave the mower, even for a moment.
- Mow only in good daylight.
- Keep hands and feet away from **rotating parts** beneath mower when engine is running.
- Do not over speed the engine or alter the governor settings. Excessive engine speed is dangerous and shortens mower life.

SAFETY & HANDLING

Safety Instructions

- **Never lift, carry or tilt the mower when the engine is running.**
- Stop the engine before pushing the mower across gravel, paths or roads. Stop the engine before the mower leaves the lawn.
- Stop the engine before adjusting the cutting height.
- Mow across the face of a slope, never up or down. Use extreme caution when changing direction on a slope. Do not mow on excessively steep slopes.
- Never mow by pulling the mower towards you. You may slip and pull the mower on top of your feet.
- Walk with the mower, never run.
- The safety distance determined by the guiding handles must be maintained at all times.
- At the conclusion of mowing, always turn the mower off using the throttle lever then turn fuel tap off (where fitted).

Maintaining the mower

- If the mower begins to vibrate abnormally, or if it strikes a foreign object - STOP the engine, disconnect the spark plug lead from the spark plug and carefully wedge it between the cylinder fins. Inspect the mower and blades for any damage.
- Replace worn or faulty mufflers as they adversely affect engine performance and increase emissions.
- Bushranger recommends that all maintenance, repair and inspection work be carried out by a Bushranger Authorised Service Centre.
- Store the mower in a well ventilated area, away from any naked flames such as those found in hot water heaters.

Refuelling the mower

- Refuel the mower outdoors only.
- Do not smoke when refuelling the engine. Never add fuel or remove the fuel cap while the engine is running or hot. If fuel is spilt, do not start the engine. Move the mower away from the area of the spill. Do not create any source of ignition until fuel vapours have dissipated.
- Store fuel in a cool place and in a container specifically designed for the purpose. Plastic containers are unsuitable, except those specifically designed to hold fuel.

Hazards

The following safety precautions must be strictly observed to avoid the risk of damage or personal injury.

- Do not smoke while operating or refuelling the mower. Never add fuel or remove the fuel cap while the engine is running or hot. If the fuel is spilt, do not start the engine. Move the mower away from the area of the spill. Do not create any source of ignition until the fuel vapours have dissipated.
- Check all fasteners regularly. Always ensure that the mower is in safe operating condition. Use genuine spare parts only.
- Do not operate the mower in confined spaces where exhaust fumes (carbon monoxide) can collect.
- Stop the engine whenever you leave the mower, even if only for a moment.
- Stop the engine when emptying the grasscatcher. Never try to clear grass from inside the mower while the engine is running.
- Never lift, carry or tilt the mower when the engine is running.
- Bystanders must be at least 15 metres away during operation of the mower, as rocks and other materials may be thrown at high velocities. Switch the unit off immediately if approached.
- Never use the mower unless the side chute and bumper bars are correctly assembled and fitted.

Personal Safety Equipment

Recommended safety equipment to wear when working with your lawnmower:

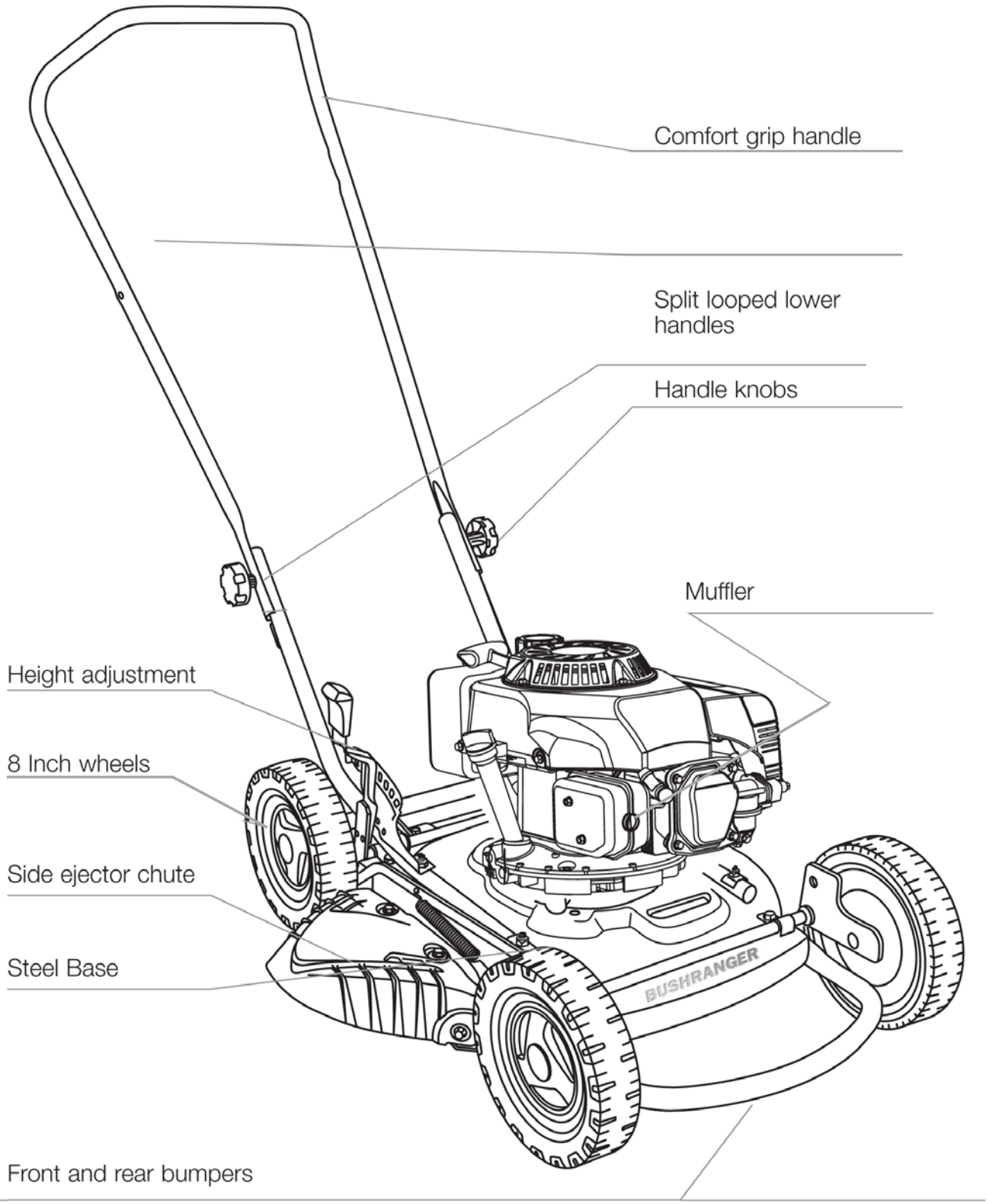
A set of ear muffs.

A pair of protective gloves.

A pair of safety boots.

Eye Protection.

FEATURES

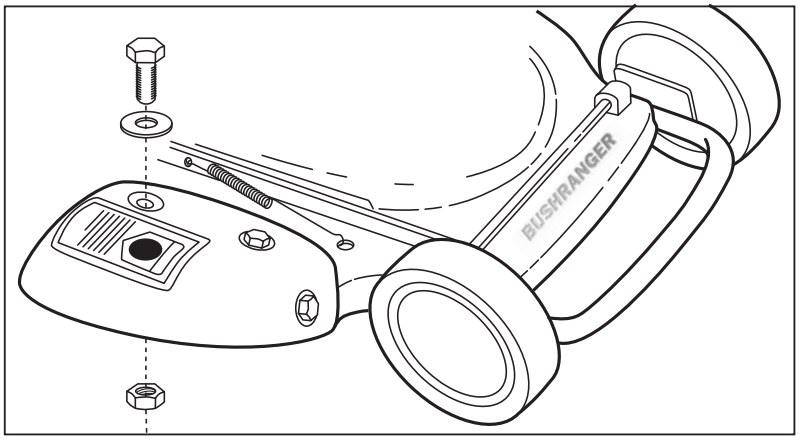

Comfort grip handle
Split looped lower handles
Handle knobs
Muffler
Height adjustment
8 Inch wheels
Side ejector chute
Steel Base
Front and rear bumpers
BUSHRANGER

Utility Side Chute

Side chute must be fitted before operating mower

SAFETY: Before Operating mower: Disconnect spark plug and fit Side Chute as shown. Do not operate mower unless Side Chute supplied by Bushranger is properly fitted.

* Bolts, washers, nuts and side chute (guard) supplied

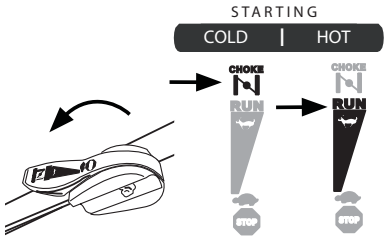


OPERATING INSTRUCTIONS

Starting & Stopping

4 Stroke Engine - Briggs & stratton, See engine manual & procedure below.

STARTING COLD



1. Move the throttle control lever to the choke/start position.

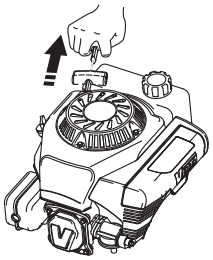
Starting hot: Use the RUN position if the Engine is warm

Note: If engine does not have a choke. Move the throttle lever to the START position & primer 3 times slowly

COLD START: press the primer bulb three times pausing each time.

HOT START: priming may only be necessary if the mower fails to start.

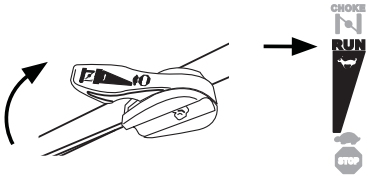
2. Pull the starter grip lightly until resistances felt, then pull briskly.



CAUTION!

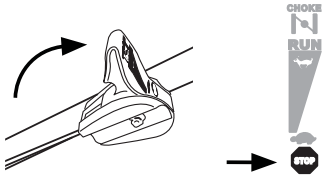
Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.

3. When the engine warms up, move the throttle to the RUN position.



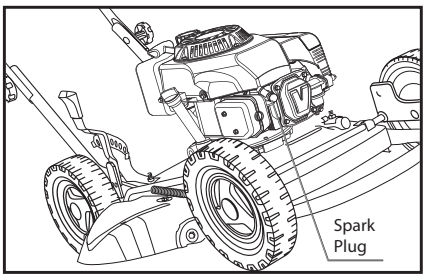
STOPPING THE ENGINE

Move the throttle control lever to the stop position.



Cleaning

Before cleaning the mower, ensure the throttle lever is in the 'STOP' position. Turn the fuel tap off, disconnect the spark plug lead and wedge it between the cylinder fins.



- Remove grass build up from the air intakes on the top of the mower cowl, around the engine and carburettor, and around the air filter body.
- The underside of the mower should be cleaned regularly to remove dirt and grass build up, any build up will adversely affect corrosion of steel baseplate.

Cleaning

- **When cleaning the underside of the mower, always tilt handle back to ground level so the front wheels are off the ground and spark plug is pointing to the sky (4 stroke engined mowers).**
- **Tilting in other directions can cause the oil to contaminate the fuel & damage airfilter causing starting difficulties (4 stroke models).**
- To prevent chassis corrosion, the underside of your mower should be cleaned immediately after mowing an area which has been recently dressed with sulphate of ammonia or fertiliser.
- After cleaning, run the engine briefly to dry off excess moisture before storing.

Blade Replacement

Model	Blade & Bolt Set
46TBU6	CA09351S

For Your Safety

- Never use the mower unless the side chute and bumper bars supplied by the manufacturer are in position.
- Before starting the mower check blades and bolts for damage or wear.
- If you strike an obstruction, stop the engine, disconnect spark plug lead from the spark plug and check the blades for damage.

Worn and damaged blades are major hazards.

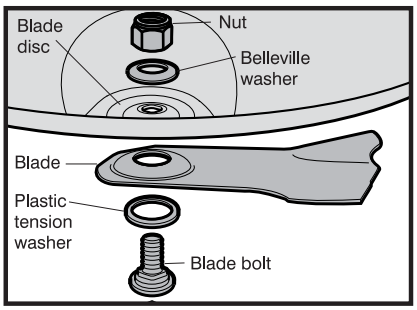
- Stop the engine and disconnect the spark plug lead before fitting new blades.

  Assembly: Fit as per the drawing remembering to push the head of the bolt into the blade disc. (this will stop the bolt head from turning). Ensure correct order of assembly.

  <u>DO NOT</u> lay mower on side 4 stroke models.
- We recommend changing blades, bolts, nuts and washers as a set. Metal fatigue and damage may occur which may not be visible to the operator. Always replace all blades to ensure correct engine balance, reducing vibration and wear. Tighten nuts on blade bolts to 14-19 Nm **(Newton Metres) or 10-14 ft lbs.**
- **Always turn the nut to check tightness, not the bolt.**

Use only genuine replacement parts made and guaranteed by Bushranger. Insist on them from your parts and service dealer.

NOTE: Use of non-genuine blades may void your warranty,and could result in damage or injury.



MAINTENANCE & CARE

Blade Replacement

- **Always turn the nut to check tightness, not the bolt.**

Use only genuine replacement parts made and guaranteed by Bushranger. Insist on them from your parts and service dealer. Detailed fitting instructions are printed on genuine Bushranger blade packs. Use of non-genuine blades may void your warranty, and could result in damage or injury.

Remote Air Filter Maintenance

For correct engine performance and to guard against dust entering the engine, causing rapid wear, the air filter assembly must be clean and maintained in good condition. Bushranger recommends that the air filter element and seal ring are replaced annually, or more often in dusty conditions. Always replace with genuine Bushranger spare parts. Use of non-genuine spare parts may damage your mower engine, and void the product warranty.

Replacing Air Filters

STOP ENGINE.

(Fig. 1) 4 stroke models, twist filter cap anti-clockwise and remove cap from filter housing.

To stop loose material falling into filter body, tilt upper handle so that filter body is up-side down. Remove filter element and seal ring.

(Fig. 2) Clean filter element “A” by tapping it on palm of hand. Do not use compressed air or wash with any liquid. Examine element for holes, splits or permanent clogging. Replace if necessary.

Dust-off seal ring “B” and examine. Replace if damaged or permanently crushed.

(Fig. 3) Fit or refit seal ring and filter element. Tilt upper handle back to normal position.

Push filter cap on, ensuring teeth engage in slots on filter housing.

Fig. 1

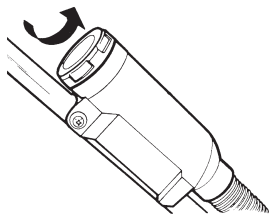
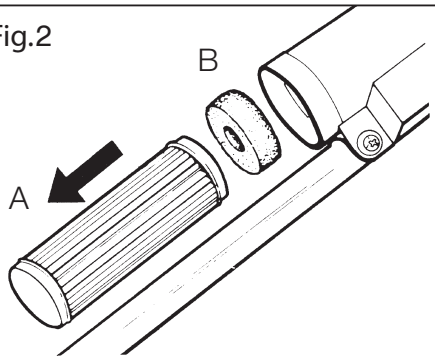


Fig.2



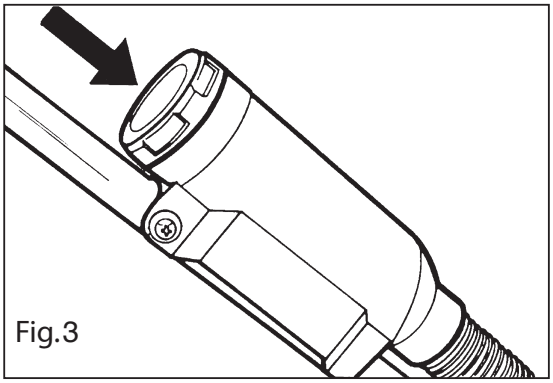


Fig.3

Maintenance Chart

Refer to the following table for routine maintenance.

Features	Requirements	Time Period: Before start	After finish	Refuelling	Weekly	Monthly	If faulty	If damaged	As required
Lawnmower	Visual inspection (leaks)	●		●					
Throttle lever	Check operation		●						
Remote Air filter hose	Check	●				●			
Cutting System (Blades)	Inspect and check assembly	●							
	Replace						●	●	
Ejector shute	Inspect and check assembly	●							●
Chassis	Check for buildup of grass		●						
	Clean		●						
	Replace							●	
Air filter	Check	●							
	Clean	●							
	Replace						●	●	
Engine Cylinder fins	Clean		●						●
Spark plug	Replace						●		●
All accessible fasteners	Check	●							
	Retighten								●
Engine mounting bolts	Check & retighten	●				●			
Muffler	Inspect					●		●	
	Replace							●	●

Before carrying out maintenance, STOP the engine, disconnect the spark plug lead from the spark plug and wedge it between the cylinder head fins.

Never attempt maintenance that is not outlined in this manual. All repair work must be carried out by a Bushranger Authorised Service Centre.

QUESTIONS & ANSWERS

Troubleshooting

In small engines generally, difficult starting and erratic running is most often caused by a dirty spark plug. If a new spark plug of the correct type does not restore the engine to proper operating condition, the problem may be solved by reference to the chart below.

Problem	Possible cause	Correction
Does not start	Out of fuel	Refill tank with correct fuel
	Throttle lever in incorrect position	Refer to 'Starting Procedures'
	Spark plug lead not connected	Press terminal cover fully onto the spark plug
	Engine flooded	Turn fuel tap 'OFF'. Pull starter cord until engine starts, then turn fuel tap 'ON'
	Dirty spark plug	Replace spark plug
	Stale fuel in tank from last season	Empty and refill with clean fuel, if it does not work contact Service Centre.
	Water in fuel tank	Empty and refill with clean fuel, if it does not work contact Service Centre.
	Service required	Contact Service Centre
	Engine worn	Contact Service Centre
	Low or no oil (4 stroke)	Check
Loss of Power	Incorrect throttle setting	Set throttle lever in the 'RUN' position
	Dirty air filter element	Clean or replace
	Too low height adjustment	Raise cutting height
	Low or no oil (4 stroke)	Check
Poor cutting	Blades worn or damaged	Replace
	Blade disc loose	Contact Service Centre
	Slow running	Refer to 'Loss of Power' above
	Blades restricted by grass and dirt accumulated under the baseplate	Remove spark plug lead and clean under the baseplate
Excessive vibrations	Build up of grass and dirt on upper surface of blade disc	Remove spark plug lead & clean blade disc
	Blades out of balance	Replace both blades
	Bent or damaged disc or blade	Replace disc or both blades
	Looseness of assembly	Check all nuts for tightness
	Low or no oil (4 stroke)	Check
Engine stops frequently	Fuel supply blocked	Check fuel line
	Engine worn or seized	Contact Service Centre
	Fuel cap not venting	Check / Loosen cap slightly
	Low or no oil (4 stroke)	Check

If running difficulties continue, contact your closest Bushranger Authorised Service Centre as listed in the back of this manual.

Warranty

Consumer Rights

The buyer should be aware that in relation to goods which are of a kind ordinarily acquired for personal, domestic or household use or consumption, certain provisions such as the Trade Practices Act, 1974 (Aust) and the Consumer Guarantees Act, 1993 (NZ) apply. The terms set out below do not exclude rights and remedies implied by a statute which are non-excludable and which may be more extensive than those provided by this warranty.

Warranty Service

Warranty Service under both the Express Warranty and the warranties implied by law is available at any Bushranger Authorised Service Centre. These centres are staffed and equipped to provide expert service.

Warranty Period - 46TBU6

Model	Domestic Use	Commercial Use
46TBU6	1 Year	6 months

Under Express Warranty the 'Lawnmower' is warranted from the date of purchase against mechanical defects and faulty workmanship or material. Express Warranty covers only the replacement, repair or adjustment of parts which fail due to a fault in manufacture. Defective parts will be replaced or serviced by an Authorised Bushranger representative without charge for labour or materials, subject to conditions. Repairs or adjustments required by normal use or by failure to follow the manufacturer's instructions are chargeable to the owner.

Bushranger Service Representatives or agents are authorised to determine whether a claim will be covered under warranty, or payable by the owner on completion.

WARRANTY

Warranty *(cont.)*

Conditions (cont.)

You should seek independent legal advice to determine whether a claim not covered by the Express Warranty is covered by any warranties implied by law.

- Express Warranty applies to the original purchaser only. Proof of purchase date must be provided prior to Express Warranty work.
- Use of parts other than genuine Bushranger Spare Parts cancels the Express Warranty.
- Repairs other than by a Bushranger Authorised Service Centre cancels the Express Warranty.
- Altering the product (including governed speed) cancels the Express Warranty..
- **A 'lawnmower' run with incorrect fuel, oil or oil level, is not covered by the Express Warranty.**
- Failure to properly service cooling or air filtration systems cancels the Express Warranty.
- Failure to follow the instruction manual or labels attached cancels the Express Warranty.
- Fair and reasonable wear is not covered by the Express Warranty.
- Damage from an accident, misuse or neglect is not covered by the Express Warranty.
- Costs of transportation of the 'lawnmower' are to be paid by the owner.
- **Blades and spark plugs are not covered by the Express Warranty.**

Limitations of Warranty

Nothing in these terms shall exclude, restrict or modify any term, condition, warranty or liability implied into this contract by statute, where to do so would be unlawful or would render any provision of this contract void. Subject to that, all warranties implied by statute in respect of the goods are hereby expressly negated and Power Lawncare Product's liability for the goods is limited to any warranties issued in writing by Powerup Lawncare Products and Powerup Lawncare Products is excluded from any liability whether under this contract or otherwise to the buyer of any third party for any loss, injury, cost or damage (direct, indirect, special, consequential, or otherwise and whether or not arising from a negligent act or omission of Bushranger), incurred or suffered by reason for the goods, their use, their design or any failure to deliver or delay in delivering them. Where it is legal to do so, any remaining liability implied by statute or resulting from breach of any term, condition or warranty implied by statute is limited to, at Powerup Lawncare Product's sole option:

- the replacement of the goods or the supply of equivalent goods;
- the repair of goods;
- the payment of the cost of replacing the goods or of acquiring equivalent goods; or
- the payment of having the cost of the goods repaired.

In particular, your rights and remedies under the Trade Practices Act (Aust) and the Consumer Guarantees Act (NZ) are not excluded.

NOTES

NOTES

NOTES

BUSHRANGER

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A3	AT	DT	Revised	21/07/09
A2	AT	DT	Revised	23/04/10
Rev	Own	Chk	Release	Date